

# Disintegrated Experience: The Dissociative Disorders Revisited

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We present proposed changes to the dissociative disorders section of the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* and review the concept of pathological and nonpathological dissociation, including empirical findings on the relations between trauma and dissociative phenomenology and between dissociation and hypnosis. The most important proposals include the creation of two new diagnostic entities, brief reactive dissociative disorder and transient dissociative disturbance, and the readoption of the criterion of amnesia for a multiple personality disorder diagnosis. We conclude that further work on dissociative processes will provide an important link between clinical and experimental approaches to human cognition, emotion, and personality.

Disintegrated personality is no bizarre phenomenon, but in its mild forms an almost every-day clinical affair—Morton Prince (1906-1907, p. 187)

## Rediscovery of Dissociation

The current resurgence of interest in dissociative processes and disorders, of which this article is an example, follows a tradition established by the *Journal of Abnormal Psychology*. Not only was its founder, Morton Prince (1854–1929), the author of a classic study on multiple personality (that of Miss Beauchamp) and a strong advocate of the study of multiplicity, but the journal itself was centrally concerned with the concept of dissociation. For instance, the first volume of the *Journal of Abnormal Psychology* in 1906 contained 19 articles by some of the most important figures in psychology at the turn of the century (Pierre Janet, Vladimir Bechterew, Boris Sidis, Édouard Claparède, James Angell, Morton Prince, and Carl Jung). Of these articles, 3 are devoted to dissociation, 2 to hypnosis, 4 to hysteria, 1 to the “feeling of unreality,” and 1 to apparent subconscious fabrication. At the turn of the century, in addition to the seminal work of Janet, the concept of dissociation was being developed by such notable authors as William James, Frederic Myers, Jean Martin Charcot, Charles Richet, and Giles de la Tourette.

However, the initial interest in dissociation and multiplicity was short-lived. For instance, E. R. Hilgard (1987) found 20 items in *Psychological Abstracts* indexed under dissociation for the period 1927–1936 but just 13 for the next 3 decades. The

decline of interest has been attributed to the long dominance within academic psychology of behaviorism and Soviet reflexology and to the ascendancy in clinical psychology and psychiatry of the rival theory of psychoanalysis (cf. E. R. Hilgard, 1987; Nemiah, 1989). Indeed, Prince had complained that “Freudian psychology has flooded the field like a full rising tide, and the rest of us were left submerged like clams buried in the sands at low water” (Nemiah, 1989, p. 1528).

This state of affairs notwithstanding, the last decade has seen a strong rise of interest in dissociative processes. The diagnostic category of dissociative disorders is recognized in the current edition of the *Diagnostic and Statistical Manual of Mental Disorders* (rev. 3rd ed.; American Psychiatric Association, 1987). A specialized journal, *Dissociation*, was launched in March 1988 by the International Society for the Study of Multiple Personality and Dissociation, and the two main journals on hypnosis, the *International Journal of Clinical and Experimental Hypnosis* (Orne & Hilgard, 1984) and the *American Journal of Clinical Hypnosis* (Braun, 1983), have devoted special issues to dissociation and multiple personality. A recent literature search in the Medline database for articles from 1968 to 1988 yielded approximately 100 nonoverlapping references to the terms *dissociative disorders* and *dissociative neuroses*, and the last 2 years have seen an exponential increase in related articles, in stark contrast with previous years (cf. E. R. Hilgard, 1986, 1987). There are a number of reasons for the current interest in dissociation: the widespread diagnosis of posttraumatic stress disorder (PTSD) and multiple personality disorder; the current research on the incidence of childhood physical and sexual abuse and other traumas with apparent dissociative sequelae (D. Spiegel, 1984; Terr, 1991); an increased recognition of hypnosis as a valid scientific arena of inquiry; the sense that psychoanalytic theory and dissociation are not necessarily incompatible (Erdelyi, 1985); and the appearance of models within cognitive psychology, including the concept of parallel processing, that provide compatible modern formulations for the notion of dissociation (E. R. Hilgard, 1986; Kihlstrom, 1984; D. Spiegel, 1990).

In this article we review the concept of dissociation, the observed linkage between traumatic events and dissociative phenomena, and the proposed changes in the dissociative disorders section of the forthcoming *DSM-IV*.

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Both authors contributed equally to this paper.

The views expressed in this article are those of the authors and do not represent the official positions of the American Psychiatric Association or its Task Force on *DSM-IV*.

We thank the members of the Working Group on Dissociative Disorders of the Task Force on *DSM-IV*, Karen Peoples, and two anonymous reviewers for their valuable comments.

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### Concept of Dissociation

Dissociation can be thought of as a structured separation of mental processes (e.g., thoughts, emotions, conation, memory, and identity) that are ordinarily integrated. For instance, dissociated behavior is experienced as being outside of conscious control, and dissociated memories seem unavailable, even though both dissociated behaviors and cognitions may exert an influence on nondissociated components of behavior and experience. Dissociation in everyday life has been invoked to explain why a person can competently conduct several actions simultaneously (e.g., driving and maintaining a conversation), while having no reflective awareness of one or more of them. Although it is frequently proposed that instances such as this represent ordinary variants within the spectrum of dissociation (E. R. Hilgard, 1986; see also Langer & Friedus's, 1987, concept of mindlessness), there are conceptual problems that need to be disentangled. Within the hypnotic context it is commonly assumed that persons that have been truly hypnotized or manifest a dissociative disorder are momentarily incapable of becoming aware of an internal or external event when they attempt to do so, rather than solely engage in distracting their attention or enact automatic behavior (Kihlstrom, 1984; Kihlstrom & Hoyt, 1990; but see Spanos, 1986, for an alternative perspective). Indeed, a connection between hypnotizability and dissociation has been proposed on empirical and theoretical grounds (e.g., Cardeña & Spiegel, 1991; Nemiah, 1985; D. Spiegel, Hunt, & Dondershine, 1988; Stutman & Bliss, 1985).

At the center of the problem, then, is not merely the apparent automaticity of behavior but the intentionality of dissociative processes and the concurrent inability to integrate compartmentalized aspects of experience. Although both automatic and what we truly call dissociated events (i.e., those that the person cannot integrate within reflective consciousness even when willing to do so) have been included within the rubric of dissociation, we refer throughout this article to dissociation as involving an at least momentarily unbridgeable compartmentalization of experiences, rather than the mere presence of overlearned or unreflective behavior.

A problematic but not uncommon definition of dissociation is that of the *Oxford Companion to the Mind* (Gregory, 1987): "Two—or more—mental processes can be said to be dissociated if they coexist or alternate *without becoming connected or influencing one another*" (p. 197, italics added). Although the essence of the concept of dissociation does involve the coexistence of psychological processes that have been compartmentalized and separated from each other, the concept does not require that these processes be completely independent of each other. Even early in the century, it was clear that ongoing psychological processes of which a person reported no introspective awareness can affect the execution of ongoing behavior and cognition, and the notion of noninterference by dissociative processes was found to be faulty. E. R. Hilgard (1986) pointed out that early experimental results only disproved the extreme interpretation of dissociation that required the complete independence of dissociated processes, although they were perceived in some quarters as invalidating dissociation altogether.

Indeed, one of the most interesting aspects of dissociation is

the fact that material out of conscious awareness can nonetheless exert a tangible effect. Reviewing the relevant current experimental literature, Kihlstrom (1984, 1987; Kihlstrom & Hoyt, 1990) has found evidence that dissociated information or processes can exert both interfering (when engaged in a different task) or priming (in memory experiments after hypnotic amnesia instructions) effects on ongoing tasks. Although dissociated information that is unavailable to consciousness may exert its influence on conscious performance, it may also reduce the interfering effect of alternate processes and thereby enhance performance on some tasks. Bowers (1990) reported a series of studies in which hypnotic analgesia—but not conscious enactment of cognitive pain control strategies—improved cognitive performance that had been inhibited by cold pressor pain. In other words, an hypnotic process to dissociate the experience of pain allowed more attention to be deployed on cognitive tasks. Thus, dissociated events show some independence but may yet influence ongoing experience and performance, either through priming or through increase or reduction of interference on alternate tasks (cf. Kihlstrom, 1984). More work is needed to elucidate the nature of these relations.

In a recent article, Frankel (1990) proposed that the concept of dissociation lacks clarity and has come to preempt in some quarters the attributes usually ascribed to repression and other defenses. Indeed, a recent conference on the general topic of repression and dissociation found a number of experts divided as to whether they considered dissociation to be different from repression in a broad sense (Singer & Sincoff, 1990). A distinction in which repression is seen as "a pushing (or pulling) of ideas deep into the unconscious where they cannot be accessed" and dissociation as "a severing of the connection between various ideas and emotions" (Singer & Sincoff, 1990, p. 481) has been offered (A. Freud, 1946; but see Erderlyi, 1985, for a cogent criticism of the distinction between dissociation and repression). Dissociative processes have also been hypothesized to be only partially and alternately out of consciousness (rather than lying deeply in the unconscious), able to exert different types of influence on non-dissociated processes, and associated to actual traumatic events or particular attentional strategies (e.g., meditation) rather than to ward off unacceptable unconscious ideas or fantasies. Another distinction is that the term *dissociation* is amenable to being used more descriptively and less inferentially than that of repression or defenses in general (e.g., one can more easily speak of dissociative experiences than of repressive experiences).

Nemiah's (1985) conception of *pathological dissociation* involved a significant alteration in the sense of identity and, following Janet, an associated disturbance of memory. The definition of dissociation from the *DSM-III-R* reflects this stance: "a disturbance or alteration in the normally integrative functions of identity, memory, or consciousness" (American Psychiatric Association, 1987, p. 269). Recently a third component, namely, an association between dissociative symptomatology and traumatic events, has been reported by a number of authors (Coons & Milstein, 1986; Frischholz, 1985; Putnam, 1989; Putnam, Guroff, Silberman, Barban, & Post, 1986; D. Spiegel, 1984, 1986). We support this position by proposing that posttraumatic phenomenology frequently involves alterations in the rela-

tionship to the self (e.g., depersonalization and multiple personality disorder), to the world (e.g., derealization and hallucinatory phenomena), and to memory processes (e.g., psychogenic amnesia, fugue, and multiple personality disorder).

Although a case can be made that all dissociative disorders are of traumatic origin, two issues prevent moving in that direction in the present proposals for the *DSM-IV*. On the one hand, the *DSM* scheme as a whole has undoubtedly moved away from an etiologically based system into a more descriptive one. The second issue is that at present the database suggests strongly a relation between trauma and dissociation (see later discussion), but the nature of this relation is still far from being established. Whether trauma is a necessary and sufficient condition or a mere incidental correlate of dissociative disorders is far from clear. A different difficulty lies in the great suggestibility of some dissociative populations (e.g., persons with multiple personality disorder), which may make them more susceptible to implicit demands by the clinician willing to demonstrate a particular dissociative phenomenology or traumatic etiology of the condition. These issues notwithstanding, a reasonable conclusion that can be drawn from the literature is that persons who suffer from dissociative and related disorders very frequently report previous abuse and trauma. This may sensitize the clinician to the possibility of previous trauma, even when the person decides not to report it or is amnesic about it (cf. Gelinas, 1983). The recent development of standard scales and interview schedules to evaluate dissociative phenomena and disorders will allow a more systematic inquiry of the nature and epidemiology of dissociation and its connection with traumatic events. Of the recently developed scales and interview schedules, the following exhibit particular promise, are widely known, have sound psychometric properties, or are being used in programmatic research on the dissociative disorders: (a) the Dissociative Experiences Scale, a 28-item questionnaire (Bernstein & Putnam, 1986); (b) the Dissociative Disorders Interview Schedule (Ross, 1989; Ross et al., 1990), with a maximum of 131 items; and (c) the Structured Clinical Interview for *DSM-III-R*—Dissociative Disorders (Steinberg, Rounsaville, & Cicchetti, 1990), with a maximum of 199 items.

### *Dissociation and Trauma*

The writings of Janet and Prince on dissociation (cf. van der Kolk & van der Hart, 1989; Prince, 1900-1901) acknowledged that a properly disposed person may develop dissociative symptomatology (including multiplicity) as a response to subjectively perceived traumatic events, and in the early theoretical work of Breuer and Freud (1895/1955), actual traumatic events had a more central role than they were later granted. More recent and systematic work suggests that major stress and traumatic events (e.g., physical or sexual abuse, rape, and human-made or natural disasters) are common antecedents of dissociative phenomena, including reactive dissociative symptomatology, psychogenic amnesia, atypical dissociative disorders and, most extremely, multiple personality disorder.

The long-term deleterious impact of natural and human-made disasters on the psychological and physical well-being of persons has long been recognized. In a comprehensive review

of the literature, McCann, Sakheim, and Abrahamson (1988) found that the following short- or long-term psychological sequelae to victimization had been supported by the extant literature: (a) emotional reactions (fear, anxiety and intrusive phenomena, depression, self-esteem disturbances, anger, guilt, and shame); (b) cognitive disturbances, including dissociative processes; (c) biological reactions including hyperarousal and somatic disturbances; (d) behavioral changes (aggressive or suicidal behavior, substance abuse, impaired social functioning, and related personality disorders); (e) interpersonal problems in the areas of sexuality, relationships, and revictimization, including the victim becoming a victimizer. It is noteworthy that in this review less information about cognitive and dissociative reactions than about any of the other areas was available, despite the central role of such reactions in response to, for instance, incest (e.g., Gelinas, 1983) and other forms of trauma.

Although retrospective in nature and relying mostly on self-reports, the literature on early sexual or physical abuse suggests a reliable connection between abuse and dissociative phenomenology. Such a relation has been proposed for multiple personality disorder but is also supported by other evidence. Herman, Perry, and van der Kolk's (1989) study of the history of traumatic events among borderline patients found a high prevalence of reported trauma and, of particular importance to this article, that dissociative symptoms were more strongly predicted by early trauma than by the borderline diagnosis *per se*. In a related study by Ogata et al. (1990) with adults diagnosed as having borderline personality disorder, derealization was the best statistical predictor of a history of sexual abuse and, in addition to promiscuity, unstable one-to-one relationships, chronic dysphoria, and depersonalization, was found to significantly differentiate those patients who had reported childhood sexual abuse from those who had not. Lastly, Chu and Dill (1990) in their study with 98 female psychiatric patients found that scores on the Dissociative Experiences Scale were significantly higher among patients that reported early physical or sexual abuse by family members.

In a study by Coons, Bowman, and Pellow (1989) on the prevalence of adult and childhood trauma in various clinical populations, 100% of patients with atypical dissociative disorder and 82% of those diagnosed with psychogenic amnesia reported sexual, physical, or verbal abuse or neglect during childhood, and about half of them had also experienced adult trauma. With regard to the association between psychogenic amnesia and early abuse, Briere and Conte (1989) reported that 59.6% of their sample of 468 patients with a reported history of childhood sexual abuse had not been able to remember the abuse at some point in their lives. Hence, although reports of childhood sexual or physical abuse are important factors in a number of adult psychiatric disorders (Bryer, Nelson, Miller, & Krol, 1987), there is growing evidence that dissociative symptomatology is a distinctive and frequent outcome of reported early abuse, especially chronic abuse (cf. Terr, 1991).

Although there is no solid evidence that such dissociative phenomenology is frequently induced by the victims themselves, there have been isolated reports of intentional use of hypnotic-like techniques to avoid some of the pain of early abuse. Gelinas (1983), for instance, wrote of a woman who re-

ported that when she was 11 years old, she purposefully induced anesthesia in her hands to avoid the pain produced by an incestuous stepfather. The woman reported remembering "looking straight into his eyes and holding her breath so that this time she wouldn't cry, telling herself not to feel her hand" (p. 316). Exposure to stressful events may be one of the developmental paths toward developing high hypnotizability, and this idea is supported by reports of a positive correlation between severity of punishment during childhood and hypnotizability (J. Hilgard, 1970; Nash & Lynn, 1986), although at least one study (Rhue, Lynn, Henry, Buhk, & Boyd, 1987) has failed to corroborate this association.

Perhaps because of the considerable methodological and ethical difficulties, much more systematic attention has been paid to long-term reactions to traumatic events than to immediate and short-term effects. We now review the evidence that beyond the well recognized anxiety symptoms, alterations in the normally integrative functions of identity, memory, or consciousness are commonly found among victims of human-made and natural disasters, concurrently or shortly after the traumatic episode. Although this literature is limited by methodological problems including the generally retrospective nature of the accounts and the lack of a systematic chronological history of the development of symptoms, the substantial agreement among authors who used different instruments and evaluated different types of stress suggest that dissociative symptomatology can be reliably expected in a substantial proportion of the population exposed to a traumatic event.

*Detachment.* A sense of detachment from one's physical or psychological being (i.e., depersonalization) or from the surrounding social and physical environment (i.e., derealization) has been reported frequently in connection with very stressful events and, as numbing, figures prominently in the symptomatology of posttraumatic stress disorder (cf. Horowitz, 1976). Jaffe (1968) observed that concentration camp survivors sometimes described themselves as "semistuporous robots" (p. 312). Frankenthal (1969) noted that prisoners endure their situation by detaching themselves from their immediate surroundings and reliving better times, an observation echoed by Frank (1973). Rose (1986) reported that depersonalization, including out-of-body experiences, and other dissociative forms are commonly reported by rape victims (but no statistical data was provided).

More systematically, Hillman (1981) described the frequent appearance of dissociative symptoms in 14 correctional officers held hostage in a violent prison riot. During beatings, the officers reported being at a distance from their bodies, with decreases in pain sensation, time distortion, "feeling dazed" and in a "state of shock" (p. 1195). Also with regard to hostages, Siegel (1984) reported that during their captivity, 8 persons (25.8% of his sample) had experienced lapses of concentration, disorientation, alterations in body imagery and sensations (e.g., feeling numb) and dissociation (including depersonalization feelings and in 4 cases out-of-body experiences).

In a survey of 101 survivors of life-threatening danger, Noyes and Kletti (1977) found that 72% had experienced feelings of unreality and an altered sense of the passage of time through the ordeal, 57% reported automatic movements, 56% lack of

emotion, 52% a sense of detachment, 34% felt detached from their bodies, and 30% experienced derealization. A factor analysis of phenomena experienced by an expanded group of 189 accident victims identified depersonalization and hyperalertness as factors that accounted for the most variance in this group (Noyes & Slymen, 1978-1979).

Similarly, Madakasira and O'Brien (1987) interviewed 279 survivors of a series of tornadoes that had killed 9 people and injured more than 150 and reported similarly that 57% experienced detachment, 45% diminished interest, and 35% diminished libido. An investigation of initial and long-term reactions to an airplane crash landing found that 54% of the survivors reported feeling detached or estranged (Sloan, 1988). Somewhat lower percentages are reported by Wilkinson (1983) among survivors of the Hyatt Regency Skywalk collapse in which 114 people died. Of his respondents, 36% mentioned an inability to feel deeply about anything, 34% reported loss of interest, and 29% mentioned feeling detachment. As a participant-observer of the devastating Ash Wednesday bush fires in Australia, Valent (1984) reported that there was a common absence of emotions and a sense of being dazed or stunned once the victims accepted the overwhelming nature of the disaster. With respect also to the victims of a fire disaster, McFarlane (1986) noted that the subgroup of patients (44% of his sample) who showed emotional constriction had had the most intense exposure to the disaster or had a next of kin die. These patients had sought help about 58 weeks after the disaster, although they had been symptomatic for an average of 41 weeks before they sought help.

As may be expected, war-related reactions show a similar pattern. Feinstein (1989), reporting on a bloody ambush on Namibia, found that out of 17 direct and indirect combatants, 41% showed markedly diminished interest in usual activities and 24% expressed feelings of detachment or estrangement 1 week after the attack. In a factor-analytic study with 104 Israeli soldiers who were suffering combat stress reactions 1 year after the Lebanese war, Solomon, Mikulincer, and Benbenisty (1989) found that the factor that accounted for the most variance (20%) was psychic numbing, described by the authors as comprising "various methods of 'distancing' or dissociating, for example, detachment and thinking about civilian life" (p. 42). Thus, a consistent pattern of results suggests that simultaneously and subsequently to a traumatic event, between one quarter and one half of persons experience a sense of detachment from their physical and psychological self or from the social and material world and that detachment or denial responses increase the likelihood of later posttraumatic stress disorders (cf. McFarlane, 1986; Solomon et al., 1989).

*Alterations in perception.* Besides the changes in body image and time passage just mentioned, visual and auditory alterations have also been associated with the presence of severe stress, for instance in concentration camps (Jaffe, 1968) and during childbirth (Farley, Woodruff, & Guze, 1968). Out of the 23 Chowchilla child kidnap victims she studied, Terr (1979) found that 8 had had illusions or hallucinations during the ordeal, and other children (unspecified) had reported this type of phenomenon later on. In addition, a different group of 8 chil-

dren had a distorted sense of the sequence of events during and around the trauma, phenomenon which Terr called *time skew*.

Probably the most systematic study of hallucinatory phenomena by persons in distress has been that of Siegel (1984) among hostages. He reported that approximately one quarter of his sample had hallucinatory experiences while captive. More common hallucinatory phenomena included flashes of light and geometric patterns in the periphery of the visual field, whereas more complex and realistic hallucinations appeared during later stages of the hostage experience. Interestingly, these visual experiences are not unlike those reported by highly hypnotized persons in a minimum-suggestion hypnotic context (Cardena, 1988).

The extensive literature on so-called "near-death experiences" also contains many reports of perceptual alterations in connection with actual or perceived threat to one's life, including out-of-body experiences and other changes in the phenomenal self (Noyes & Kletti, 1977), which have also been anecdotally reported in connection to such other traumatic events as rape (e.g., Rose, 1986).

There is also anecdotal evidence of absence of or decrease in pain sensation during or shortly after a disaster (e.g., Hillman, 1981; Valent, 1984). Recent experimental work with PTSD patients (Pitman et al., 1990) supports the conjecture that opioid-mediated, stress-induced analgesia might operate during a traumatic event.

**Memory:** Alterations in memory, in the form either of total or partial amnesia for the trauma or of recurrent unbidden recollections of such an event, have been frequently reported. Madakasira and O'Brien's (1987) study of tornado victims found that 61% of their sample mentioned some form of memory impairment. In Sloan's (1988) study of survivors of an airplane crash landing, he found that 79% reported decreased concentration or memory. Memory disturbances were also characteristic of 44% of diagnosed PTSD victims of the Victoria bush fire at both 8 and 24 months after the incident (McFarlane, 1988). Finally, Wilkinson (1983) reported that 27.4% of the Hyatt Regency victims sample had memory deficits.

That memory processes may not be affected in the same way among children is suggested by the studies by Terr (1979) and Dollinger (1985). Terr (1979) did not find any problems with recollection among the Chowchilla children, who had been victims of a particularly traumatic kidnapping, and she has also reported that though children younger than 28–36 months at the time of various traumas were not able to verbalize what had occurred, they nonetheless showed reenactments of the event in their games (Terr, 1988). More recently, Terr (1991) reported that among children, memory is not impaired after a single trauma but may be affected by exposure to chronic abuse. Dollinger (1985) did not find memory impairment among a group of 38 children exposed to lightning strikes.

A plausible way of accounting for at least some of the reported memory alterations can be derived from the laboratory work of Christianson and Loftus (1987), who have observed that exposure to disturbing events greatly focuses attention on the essential aspects of the event to the detriment of more peripheral and contextual aspects. Such loss of peripheral information and of, presumably, a reflective perspective—similar to

a hypnotic context—may be additive to the general encoding impairment produced by a very distressing event (cf. Loftus & Burns, 1982). In addition to the possible cognitive disorganization fostered by intense anxiety, the strong focus on the traumatic content may impair memory by disembedding the perception from its context, making the traumatic event much more unusual, salient, and hence, difficult to integrate within the person's repertoire of experiences.

A different type of memory and emotional disturbance is found in recurrent and intense unbidden thoughts, images, dreams, and emotions. Recurrent vivid memories or flashbacks are common among PTSD patients (cf. Horowitz, 1976). In addition to the substantial literature on war-associated PTSD, Wilkinson (1983) reported that 88% of his Hyatt Regency sample had repeated recollections of the disaster; Madakasira and O'Brien (1987) noted that within their sample of tornado victims, 92% had intrusive thoughts and 44% had recurrent dreams. Valent (1984) reported that later memories of a fire disaster were vivid and frequent, particularly in the presence of specific cues.

Traumatic affect may be one of the few, and hence strong, associates of the contents of the trauma, thereby requiring replay when internal or external cues are present, according to the associative network theory of memory (Bower, 1981). To avoid reemergence of the associated painful effect, the content may be dissociated but reappear with all of its salience and unintegrated emotional charge when dissociation fails. In basic accord with this stance, McGee (1984) provided a cogent analysis of flashbacks as manifestations of normal attentional and memory processes.

Paradoxically, continued efforts at suppressing memories of the traumatic event or dissociating their emotional component may eventually induce greater recurrence of memory, as suggested by the literature on thought suppression (cf. Wegner & Schneider, 1989) and by the observation that detachment or lack of emotional expression are good predictors of a later chronic posttraumatic stress condition (McFarlane, 1986; Solomon et al., 1989).

In substantial agreement with the previous results, a preliminary analysis of reports from approximately 100 persons who experienced the recent Bay Area Earthquake (October 17, 1989) suggests that items that relate to depersonalization, derealization, memory disturbances, and time sense alteration (although not to hallucinatory phenomena) were endorsed more frequently ( $p < .0005$ ) 1–2 weeks after the earthquake than in a follow-up 4 months later (Cardena & Spiegel, 1990).

**Dissociation and hypnosis.** The focus on the center rather than on the periphery while experiencing disturbing events is similar to current definitions of hypnosis (e.g., Cardena & Spiegel, 1991) that emphasize the narrowing of the focus of attention, one of the main forms of absorption (Tellegen & Atkinson, 1974). Indeed, absorption complements and facilitates dissociation by taking out of conscious awareness events normally at its periphery and focusing so strongly on the experience that a reflective stance becomes difficult to maintain. Dissociative disturbances of identity and memory may ensue because reflective processes, including awareness of self, may be isolated from ongoing experience (Kihlstrom & Hoyt, 1990).

From this point of view, hypnosis may be understood as a model of controlled and structured dissociation (Nemiah, 1985), in contrast with poorly controlled dissociative symptoms (cf. Bliss, 1984; Breuer & Freud, 1895/1955; H. Spiegel, 1974), although some question this explanation by proposing that hypnosis is a multidimensional phenomenon (e.g., Frankel, 1990). Indeed, although dissociation of certain experiences seems to be a main component of hypnotic experience, absorption, primary suggestibility, and experience of an alternate state of consciousness are also defining dimensions of hypnosis, albeit strongly interrelated (Cardena, 1988; Cardena & Spiegel, 1991; D. Spiegel, 1990). Indeed, a coherent characterization of PTSD can be made by using three central hypnotic dimensions. The PTSD features of intense, unreflective reliving of trauma, psychological numbing, and hypervigilance roughly correspond to the hypnotic dimensions of absorption, dissociation, and increased suggestibility (cf. D. Spiegel & Cardena, 1990). This analysis is supported by the very high hypnotizability of PTSD patients (D. Spiegel et al., 1988; Stutman & Bliss, 1985).

### *Brief Reactive Dissociative Disorder*

Consideration of the data just described and the absence of a diagnostic category in the *DSM* for acute dissociative and anxiety reactions to trauma from time of the event to 1 month later has brought about a proposal for the new diagnostic category of brief reactive dissociative disorder (BRDD; D. Spiegel, Cardena, & Spitzer, 1989). Other than the temporal parameters, this new diagnosis overlaps with the PTSD diagnosis, but it emphasizes the contribution of dissociative processes to post-traumatic symptomatology. Of course, other patterns of response to trauma that are not primarily dissociative are possible, but they are covered by existing or proposed new diagnostic entities. The BRDD category is similar to that proposed for acute stress reaction in the *International Classification of Diseases and Related Health Problems* (ICD; World Health Organization, 1990).

The proposed criteria for the diagnosis of BRDD are:

A. The person has experienced an event that would be markedly distressing to almost anyone: for example, serious threat or harm to one's life or physical integrity; serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been, or is being, seriously injured or killed as the result of an accident or physical violence.

B. Either while experiencing or immediately after experiencing the distressing event, the person has one or more of the following dissociative symptoms that indicate a disconnection of perception and memory from affect:

(1) stupor, that is, reduction in spontaneous and responsive activity, often appearing to be unaware of one's surrounding or "in a daze";

(2) derealization, that is, the environment is experienced as unreal or dreamlike;

(3) depersonalization, that is, an experience of feeling detached, or as if one is an outside observer of one's own mental processes or body, or feeling like an automaton;

(4) perceptual distortions, for example, sensing that time slows down or stops or visual or auditory illusions or hallucinations;

(5) a subjective sense of numbing, absence of emotional responsiveness, or a feeling of detachment from others;

(6) amnesia after the distressing experience, that is, inability to recall events that occurred during a discrete period of time associated with the distressing experience and which would ordinarily be remembered (the memory loss cannot be accounted for by loss of consciousness during the event or by retrograde amnesia from central nervous system trauma); and

(7) sudden experience of terror, tremor, hyperventilation, tachycardia, or other signs of physiological arousal, unconnected to conscious awareness of the trauma.

C. The dissociative symptom is sufficiently intense or persistent that it either:

(1) markedly interferes with social or occupational functioning or

(2) significantly prevents the person from pursuing some necessary task, such as obtaining necessary medical or legal assistance or mobilizing personal resources by telling family members about the traumatic experience.

D. An episode of the disturbance lasts less than four weeks. (When the diagnosis must be made without waiting for recovery, it should be qualified as "provisional").

### *Multiple Personality Disorder*

A number of studies have consistently reported a very strong association between reports of early abuse or other traumata and multiple personality disorder (MPD; D. Spiegel, 1984). In their survey of 100 cases, Putnam et al. (1986) found that 97% of all multiple personality disorder patients had reported having experienced significant trauma in childhood, usually some combination of sexual and physical abuse, with incest the most commonly reported trauma (68%). Coons and Milstein (1986) reported an overall incidence of physical or sexual abuse in 85% of 20 cases, with sexual abuse present in 75% of the cases. Lastly, Ross et al. (1990) found the incidence of childhood physical or sexual abuse to be 95% among 97 cases.

Such authors as Frankel (1990) remain concerned that these statistics may represent some degree of confabulation or that they are based on reports by highly suggestible persons, given that, as with the PTSD population, MPD patients have been found to be significantly more hypnotizable than comparison groups of normal and clinical subgroups (D. Spiegel, Frischolz, Lipman, & Bark, 1989; but see Frankel, 1990). Nonetheless, a study by Coons and Milstein (1986) found independent corroboration for the reports of abuse in 17 out of 20 patients by looking at extant records, interviewing third parties, etc. Furthermore, Putnam et al. (1986) found no significant differences between the clinical presentation, symptomatology, alternate personality phenomenology or past history between those MPD patients treated with hypnosis (and presumably more vulnerable to implicit or explicit suggestions) and those treated without it. So, although it is possible that the inappropriate handling by a therapist of a highly suggestible person may give rise to inaccurate reports of early abuse and MPD-like symp-

tomatology, this mechanism does not seem sufficient to explain all or even most of the cases of MPD (cf. Kluft, 1989; Putnam et al., 1986; Ross, Norton, & Fraser, 1989; but see the sociohistorical critique of the concepts of hypnosis and MPD by Spanos, 1989). Certainly more studies, such as that by Coons and Milstein (1986), to ascertain independent corroboration of reported early abuse are necessary, particularly given the high prevalence of reported early abuse among persons who suffer from dissociative disorders. Still, the skeptical attitude also needs to be tempered by a basic respect for the patient's or client's accounts and by the reports of various researchers outside of the clinical setting that approximately one third of American women report having had some type of early sexual abuse (cf. McCann et al., 1988).

The proposed criteria for a diagnosis of MPD in the *DSM-IV* are:

A. The existence within the person of two or more distinct personalities or personality states (each with its own relatively enduring pattern of perceiving, relating to, and thinking about the environment and self).

B. At least two of these personalities or personality states recurrently take control of the person's behavior.

C. There is an inability to recall important personal information that is too extensive to be explained by ordinary forgetfulness or by an organic mental disorder (e.g., blackout during alcohol intoxication).

Two changes have been incorporated in the diagnostic criteria for the *DSM-IV*. The first involves the deletion of the word "full" from Criterion B, which states that an alternate personality takes control of consciousness. This recommendation is based on clinical observation that the nature of dissociation is such that even when one personality is in control another may exert influence, for instance, through an auditory hallucination of comments critical toward the personality in charge. The interaction between dissociated alter personalities is congruent with the general finding that dissociated information still has an effect on conscious and behavioral processes (Hilgard, 1986).

The second change (Criterion C) involves the reintroduction of the amnesia criterion, removed in the *DSM-III-R*. The change is based on clinical observations and research that suggest amnesia is a primary component of MPD that can help differentiate the condition from other phenomena, such as ego states, purported to be common within the nonclinical population (cf. Hilgard, 1986). For instance, Ross et al. (1989) found that 100% of 102 MPD patients had endorsed at least one of six amnesia criteria and 88.2% had endorsed three or more criteria. Putnam et al. (1986) observed in a survey study of 100 cases treated by different clinicians that the most common dissociative symptoms encountered among MPD patients were amnesia (98%), fugue episodes (55%), and feelings of depersonalization (53%). A study by Bliss (1984) shows a similar pattern of results with a different MPD population: 85% amnesia, 83% dazed states, 54% depersonalization, 54% derealization, and 52% fugue states.

Objections (e.g., R. Kluft, personal communication, May 12, 1989) have been raised to the effect that false negative diagnoses can occur and some MPD diagnoses may be missed; for in-

stance, patients could be unaware of memory gaps and therefore fail to meet diagnostic criteria although they have the illness. On the basis of the systematic research just reviewed that shows the very high incidence of amnesic symptoms among MPD patients, the risk of making false negative diagnoses seems remote, particularly when the professional is sensitized to the association between amnesia and dissociation. Nonetheless, it is true that diagnostic underinclusion will be costly to the patient or client, and further research is needed to precisely measure the actual likelihood of a false negative diagnosis.

### *Psychogenic Amnesia*

Some form of amnesia for personally relevant information is a basic component of most dissociative disorders (e.g., MPD, psychogenic fugue, or Ganser's syndrome). At the turn of the century, Pierre Janet (cf. Putnam, 1989) had linked amnesia to dissociation and William James had discussed the basic integrative function of personal memory on the sense of a unified self (James, 1890/1923). The literature on combat-related trauma from the First and Second World Wars consistently showed the presence of some form of amnesia as a frequent symptom of shell shock, traumatic war neuroses, and PTSD (Kardiner & Spiegel, 1947; Loewenstein, 1991). Nemiah (1985) concluded that psychogenic amnesia was the most common of the dissociative disorders and was frequently encountered in hospital emergency rooms.

Nonetheless, the diagnosis of psychogenic amnesia is complicated by multiple memory modalities and the common and normal dissociation effects brought about by varying retrieval processes (cf. Roediger, Weldon, & Challis, 1989). In addition to the classical distinctions among retrograde (for events before the episode), posttraumatic (for events after the episode), and anterograde (impairment in learning new material) amnesia, memory loss has also been classified with respect to the extent of the material forgotten. Amnesia can be localized (circumscribed to a discrete period of time), selective (failure to recall just some aspects during a certain period of time), or generalized (inability to recall events after a specific time and up to the present). Coons and Milstein (1988) found in a sample of 25 patients admitted to a dissociative disorders clinic that 76% presented with selective amnesia. Consistent with this finding is the common report that psychogenic amnesia usually involves personal events and information, rather than general knowledge or skill, and that these gaps in memory are organized according to affective rather than temporal dimensions (Kopelman, 1987; Schacter, Wang, Tulving, & Freedman, 1982).

The criteria proposed for the *DSM-IV* for psychogenic amnesia are:

A. The predominant disturbance is one or more episodes of inability to recall important personal information, usually of a traumatic or stressful nature, that is too extensive to be explained by ordinary forgetfulness.

B. The disturbance is not due to multiple personality disorder or to an organic mental disorder (e.g. blackouts during Alcohol Intoxication).

There are two changes from the *DSM-III-R*, both in the first

criterion. The first is to delete the requirement that the amnesia be sudden. Although many instances of psychogenic amnesia appear suddenly after a stressful event, this phrasing is too restrictive and does not describe the cases in which, for example, a person may have a long history of not remembering months or years from childhood, which most other people are able to remember. In a similar vein, amnesia for a traumatic event during adult life may develop over a period of days or weeks. These gaps in memory are particularly difficult to detect because the person may be unaware of the disturbance in recall and incorrectly assume that this is a normal state of affairs.

The second change involves the addition of the phrase "usually of a traumatic or stressful nature" to indicate that various stressful events (e.g., wars, child abuse, marital trouble, etc.) are frequent precursors of psychogenic amnesia (Coons & Milstein, 1988; Kopelman, 1987; Markowitsch, 1988). Furthermore, when describing psychogenic amnesia, the proposed *ICD-10* also makes reference to the nature of the information not recalled as being usually of a traumatic or stressful nature.

### *Psychogenic Fugue*

William James' description of the case of Ansel Bourne in his chapter on the "Consciousness of the Self" in the *Principles of Psychology* (1890/1923) is the most famous case of psychogenic fugue in the literature. Psychogenic fugue has been particularly associated with wars, perhaps because of the intense and continuous stress experienced by the combatants, and the secondary gain obtained by leaving a dangerous situation (cf. Loewenstein, 1991). The relation between different types of stressful conditions and the onset of psychogenic fugue has been supported by a recent review of the literature that noted that recall of unpleasant memories, psychological or physical trauma, financial problems, and the desire to escape punishment are common antecedents to fugue episodes (Riether & Stoudemire, 1988).

The proposed criteria for the *DSM-IV* are:

A. The predominant disturbance is sudden, unexpected travel away from home or one's customary place of work, with inability to recall one's past, and loss of personal identity or an assumption of new identity.

B. The disturbance is not due to MPD or to an organic mental disorder (e.g., partial complex seizures in temporal lobe epilepsy).

With respect to the *DSM-III-R* criteria, the previous criterion of an "assumption of a new identity (partial or complete)" was deleted and instead the less restrictive phrasing "and loss of personal identity or an assumption of new identity" was added to the first criterion. This decision was made because most reported cases of fugue show various levels of identity confusion and amnesia, rather than the clear adoption of a new identity (Keller & Shaywitz, 1986; Riether & Stoudemire, 1988; Venn, 1984).

### *Depersonalization Disorder*

The term *depersonalization* has been vaguely used to describe many different phenomena, from a mild sense of detach-

ment from one's experience to drastic alterations of mind-body perception, such as out-of-body experiences. A recent review of the literature found that the four most common features of depersonalization are: (a) an altered sense of relatedness to emotions, thoughts, or body sensations; (b) a precipitating event (e.g., marijuana use); (c) a sense of unreality or a dreamlike state; and (d) sensory alterations (e.g., colors are less vibrant; Kubin, Pakianathan, Cardeña, & Spiegel, 1989). Depersonalization phenomenology can be found in nonpathological contexts such as meditation practice (Kennedy, 1976) and in association with psychiatric disturbances. Cattell (1966) reports that depersonalization is the most common psychiatric complaint after depression and anxiety. Because of its presence in many types of diagnosis, dissociative and otherwise, Ross (1989) proposed that depersonalization be dropped from the *DSM-IV* as a dissociative disorder. Steinberg (1991), however, has reviewed the literature and found a number of reports to support the existence of depersonalization as a primary chronic disturbance, although sometimes masked by secondary, more obvious symptoms. In her own research with the Structured Clinical Interview for *DSM-III-R*—Dissociative Disorders, Steinberg has found that, in contrast with a normal and a nondissociative psychiatric population, the depersonalization syndrome is characterized by its persistent, recurrent, or chronic nature, by the frequent co-occurrence of other dissociative symptoms, and by the frequent presence of "ongoing and recurrent interactive dialogues between the observing and participating self" (Steinberg, 1991, p. 228).

The proposed *DSM-IV* criteria for depersonalization disorder are:

A. Persistent or recurrent experiences of depersonalization as indicated by either:

(1) an experience of feeling detached from and as if one is an outside observer of one's mental processes or body or

(2) an experience of feeling like an automaton or as if in a dream.

B. During the depersonalization experience, reality testing remains intact.

C. The depersonalization is sufficiently severe and persistent to cause marked distress or dysfunction.

D. The depersonalization experience is the predominant disturbance and is not a symptom of another disorder, such as schizophrenia, multiple personality disorder, panic disorder, or agoraphobia without history of panic disorder but with limited symptom attacks of depersonalization, or temporal lobe epilepsy.

Two changes have been proposed, one in Criterion C and the other in Criterion D. Because some form of transient depersonalization is reported by about 50% of the normal population, may occur spontaneously under conditions of fatigue or similar, and may bring about only very transitory distress (cf. Dixon, 1963; Noyes et al., 1977; Roberts, 1960), a requirement of actual dysfunction was added to differentiate pathological from normal depersonalization.

The addition of MPD to the exclusion list for diagnosis (Criterion D) follows the observation that MPD patients frequently report depersonalization episodes (Ross, 1989; Steinberg, 1991).



### *Dissociative Disorders Not Otherwise Specified*

This category includes disorders in which the predominant feature is a dissociative symptom or syndrome (i.e., a disturbance or alteration in the normally integrative function of identity, memory, or consciousness) that does not meet the criteria for the dissociative disorders discussed earlier. There are virtually no systematic studies on the incidence of dissociative disorders not otherwise specified (DDNOS), partly because previous epidemiological studies (e.g., Farley et al., 1968; Proctor, 1958; Refsum & Astrup, 1982) have used the unclear diagnosis of hysteria, which has typically subsumed conversion symptoms, changes in consciousness, psychogenic amnesia, and numerous other symptoms.

However, two recent epidemiological studies have suggested that most dissociative diagnoses may belong in the DDNOS category. Mezzich, Fabrega, Coffman, and Haley (1989), in a study of 11,292 general psychiatry patients, found only 7 who had been given a primary dissociative diagnosis. Of these 7, 4 had received an atypical dissociative disorder diagnosis. In a sample of Indian psychiatry clinic outpatients, Saxena and Prasad (1989) found that of 62 (2.3% of a psychiatric sample) patients deemed to have a dissociative condition, 56 (90.3%) had atypical dissociative disorder. Of these, 50 (80.6%) were classified by the authors as having a simple dissociative disorder characterized by short periods of alterations in consciousness with sudden onset and termination, partial or complete amnesia for the episode, which could not be explained by an organic condition, and infrequent presentations with such associated features as motor movements resembling seizures. The remaining 6 cases (9.7%) were diagnosed as having a possession disorder, defined by short changes in personal identity, sudden onset and termination, partial or complete amnesia for the possession episode, which could not be explained by an organic condition, and such associated features as attention seeking and dramatic behavior. This reported high incidence of a possession disorder suggests that this specific phenomenology reflects the indigenous belief system of India and other cultures rather than more traditional Western ethnoepistemology as exemplified by the *DSM* nosology. Even with these considerations in mind, it must be observed that many religious experiences labeled as *possession* ought not to be considered pathological. They may have individual and social value, whereas other types of possession, particularly outside of a ritual context, are dysfunctional and may resemble to a greater or lesser degree what is known in Western psychiatric nosology as MPD, although with major differences in clinical profiles (Adityanjee, Raju, & Khandewal, 1989; see also Cardena, 1989; Krippner, 1987; Saxena & Prasad, 1989). For our purpose, it is significant that these two recent surveys of dissociative diagnoses within larger psychiatric populations found DDNOS to be the most common form of dissociative disorder.

Because of the change in the definition for psychogenic fugue that no longer requires the adoption of a new identity, the following example, present in the *DSM-III-R* as a DDNOS, was deleted from this category: cases in which sudden, unexpected travel and organized, purposeful behavior with inability to re-

call one's past are not accompanied by the assumption of a new identity, partial or complete.

The following are examples of this category proposed for the *DSM-IV*:

1. Cases similar to MPD but that fail to meet full criteria for this disorder. Examples include cases in which (a) not more than one personality state is sufficiently distinct, or (b) amnesia for important information does not occur.

With respect to *DSM-III-R*, other than minor phrasing changes, the previous example b ("a second personality never assumes complete executive control") was deleted because of the changes in the criteria for MPD, and the new phrasing with regards to amnesia was added to differentiate these cases from those considered as showing full-fledged MPD.

2. Trance states, that is, altered states of consciousness with markedly diminished or selectively focused responsiveness to environmental stimuli, that lead to distress or dysfunction. This may include such recurrent aut hypnotic phenomena as spontaneous trance, age regression, and positive and negative hallucinations.

There are three changes with respect to *DSM-III-R*. The phrase "leading to distress or dysfunction" was added to indicate that, unless leading to dysfunction, trance states are not necessarily pathological as may be observed in some highly focused nonpathological experiences of fantasy-prone persons, traditional healers, and so on (cf. Lynn & Rhue, 1988; Noll, 1983). The last sentence was added to bring attention to the observation that hypnotic phenomena outside of an appropriate setting are sometimes observed among persons with a disposition to dissociate (Bliss, 1984; Breuer & Freud, 1895/1955; H. Spiegel, 1974). A sentence in the *DSM-III-R* that indicates that trance states may occur in children after physical abuse or trauma was deleted to maintain the diagnostic criteria at a more observational and general level.

3. Derealization unaccompanied by depersonalization.

No change from the *DSM-III-R*.

4. Dissociated states that may occur in people who have been subjected to periods of prolonged and intense coercive persuasion (e.g., brainwashing, thought reform, or indoctrination while the captive of terrorists or cultists).

No change from the *DSM-III-R*.

5. Ganser's syndrome: the giving of approximate answers to questions, associated with other symptoms such as amnesia, disorientation, perceptual disturbances, fugue, and conversion symptoms.

With respect to *DSM-III-R*, the only change was to delete the word "commonly" before "associated," which makes the diagnosis of Ganser's syndrome more specific and contingent on finding other symptoms in addition to approximate answers. The mere symptom of approximate answers is found in a number of organic and functional conditions (e.g., neurosyphilis, alcoholism, and artifactual illness), whereas a syndrome including the symptom of approximate answers is considerably more rare (Feinstein & Hattersley, 1988). The original description of the syndrome by Ganser in 1898 (cf. Peszke & Levin, 1987) included disturbance of consciousness, hallucinations, somatic or conversion symptoms, and approximate answers that could not be explained by education deficiencies (e.g.,

"How many legs does a dog have?" "Three." "And a cow?" "Five."). A review of the literature by Cocores, Santa, and Patel (1984) established that Ganser's syndrome is better viewed as a dissociative disorder, and a recent update of the literature in that area (Cardena & Spiegel, 1989) showed a very high incidence of dissociative symptoms associated with approximate answers (e.g., 91% of the cases also exhibited some form of psychogenic amnesia, 57% showed disorientation to time or place, and 48% reported perceptual distortions).

6. Dissociative and trance phenomena in which the specific characteristics of the disorders are indigenous to particular locations and cultures, lead to dysfunction, and whose predominant features involve a disturbance of the normally integrative functions of memory, identity, or consciousness. Entry into undesirable altered states of consciousness beyond the control of cultural or religious ritual, for example, amnesic episodes, the assumption of another identity, or the sense of being possessed by some entity, are common features of some of these indigenous conditions.

This example was added to the list to bring attention to culturally patterned dissociative syndromes, some cases of which, albeit unusual in Western culture, would be wrongly diagnosed as psychotic in nature. It is very important to notice that, as with Criterion 2, neither the mere presence of unusual phenomena nor the apparent strangeness of behavior are sufficient for a diagnosis. Rather, the condition must be considered pathological by members of that person's culture (cf. Barnouw, 1979) or lead to marked dysfunction. So, for instance, whereas the experience of being possessed by a different entity may be considered personally and socially beneficial within the confines of a controlled and appropriate ritual setting (Cardena, 1989; Stoller, 1989), other forms of apparently unwilling, uncontrolled, peripheral, and unbounded possession may require the intervention of a traditional healer or a therapist (Obeyesekere, 1970; Ward, 1989).

As an alternative to identifying specific culture-bound dissociative syndromes as DDNOS, we propose the adoption of a new diagnostic entity, *transient dissociative disturbance*, to facilitate treatment and research on dissociation around the world. For instance, unwilling and uncontrolled possession is the most common dissociation disorder reported in some non-Western cultures (Adityanjee et al., 1989; Saxena & Prasad, 1989). The criteria for transient dissociative disturbance are, as follows.

(a) A significant social or physical stressor that would be markedly distressing to almost anyone in that culture.

(b) One or more of the following dissociative symptoms: (1) an alteration between customary and atypical held identity, such as involuntary possession states, (2) an alteration between customary and atypical behavior, such as fleeing, running, or falling out, or (3) an alteration in state of consciousness coupled with complaints of impairment in sensation or motor function not explainable on the basis of organic disease, such as *ataque de nervios*.

(c) The syndrome leads to distress and dysfunction.

### Conclusions

Dissociative disorders continue to merit systematic attention at the end of the century, as they did at its beginning. Although

they are still rare in contrast with other disorders, they are reported with increased frequency and hold unusual fascination as models of psychopathological as well as normal aspects of cognitive processing. Indeed, dissociative events underscore the relevance of identity and personal memory on personality structure and experience, and inquiry about nonpathological dissociative processes may shed light on many basic areas of psychology including attention, memory, and emotion. Of particular clinical import is the reconceptualization of dissociative disorders as a common form of reaction to trauma. Further research is needed to document the temporal and causal relation between traumatic experience and dissociative symptoms, the extent to which personality traits predispose a person to manifest a dissociative disorder, and the specific cognitive and emotional mechanisms that underlie dissociative phenomena. Current laboratory work on attention, memory, and personality traits (e.g., hypnotizability) promises to integrate the clinical study of dissociation into a more general knowledge of cognitive, emotional and cognitive processes. There are few areas in which the integration between emotion and cognition and clinical and experimental approaches seem so promising. Morton Prince would not have asked for more.

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Received July 24, 1990

Revision received October 5, 1990

Accepted October 23, 1990 ■